

TN

490

07

678

1921

CORNELL
UNIVERSITY
LIBRARY



ENGINEERING LIBRARY

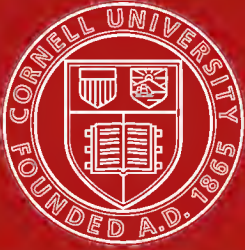
Cornell University Library
TN 490.P7G78 1921

The mineral industry of the British empi



3 1924 004 684 027

engr



Cornell University Library

The original of this book is in
the Cornell University Library.

There are no known copyright restrictions in
the United States on the use of the text.

IMPERIAL MINERAL RESOURCES BUREAU.

THE MINERAL INDUSTRY OF
THE BRITISH EMPIRE
AND
FOREIGN COUNTRIES.

STATISTICS, 1919-1921.

PLATINUM AND ALLIED METALS.



LONDON:

PRINTED & PUBLISHED BY HIS MAJESTY'S STATIONERY OFFICE
To be purchased through any Bookseller or directly from H.M. STATIONERY OFFICE
at the following addresses: Imperial House, Kingsway, London, W.C.2, and
28 Abingdon Street, London, S.W.1; York Street, Manchester;
1 St Andrew's Crescent, Cardiff; or 120 George Street, Edinburgh.

1924

Price 1s. 3d. net.

GT. BRIT. IMPERIAL INSTITUTE, LONDON.

TN
490
P7
G78
1921

B880517

dd

CONTENTS.

	PAGE
INTRODUCTORY NOTE	iv
I. WORLD'S PRODUCTION FROM PLACES	1
II. OTHER PRODUCTION IN CANADA—	
1. Royal Ottawa Mint	2
2. British America Nickel Corporation	2
3. International Nickel Company	2
III. OTHER PRODUCTION IN THE UNITED STATES—	
1. Refiners	3
2. International Nickel Company	3
IV. SUMMARY OF EXPORTS... ..	4
V. SUMMARY OF IMPORTS... ..	5
VI. DETAILS OF IMPORTS AND EXPORTS—	
1. United Kingdom	7
2. Canada	9
3. Australia	10
4. Belgium	12
5. France	12
6. Germany	14
7. Norway	14
8. Switzerland	15
9. United States	16
10. Japan	17
VII. PRICES	18
LIST OF STATISTICAL PUBLICATIONS	19

INTRODUCTORY NOTE.

In computing values of imports and exports, different systems are used by various countries. With three important exceptions, however, the values quoted are intended to represent frontier values, that is *c.i.f.* for imports and *f.o.b.* for exports. The exceptions are the Union of South Africa, Canada and the United States, in which countries values of imports are based on fair market values prevailing in the exporting countries and therefore practically represent *f.o.b.* prices.

The annual average rates of exchange used by the Bureau in converting original currency to £ (Currency), and £ (Currency) to £ (Gold), are shown in the table below, which has been compiled from information supplied by the Board of Trade and the Federation of British Industries.

Table of Average Rates of Exchange.

Country	Quotation	Parity	1919	1920	1921
Canada (a) ...	Dollars per £	4·867	4·435	4·185	4·329
Belgium	Francs "	25·22	32·15	50·19	51·86
France	" "	" "	31·78	52·68	51·92
Germany	Marks "	20·43	88·26	226·80	404·60
" (c)	" "	" "	—	—	485·91
Norway	Kroner "	18·16	18·16	22·51	26·15
Switzerland ...	Francs "	25·22	23·32	21·70	22·23
United States ...	Dollars "	4·867	4·389	3·657	3·847
" (a)	" "	" "	4·129	3·720	3·970
" (b)	" "	" "	4·723	3·945	3·716
" (c)	" "	" "	—	—	3·844
Japan	Yen "	9·76	8·69	7·32	8·00

(a) Years ended 31st March of the year following that stated.

(b) Years ended 30th June of the year stated.

(c) Eight months only, May—December.

I. WORLD'S PRODUCTION OF PLATINUM METALS FROM PLACERS (a).

(Crude troy ounces)

Producing Country	1919	1920	1921
<i>British Empire—</i>			
Canada	25	17	23
New South Wales (b)	213	796	249
Tasmania (c)	1,670	2,009	1,751
Papua (c) (d)	100	360	(e)
<i>Foreign Countries—</i>			
Russia	20,013	11,060	6,582
United States (f)	824	613	1,021
Colombia (g)	35,000	35,000	35,000
Japan	155	258	231

(a) Platinum metals are also obtained as a by-product in the refining of copper and nickel-copper mattes. Information available regarding this production is given in Tables II and III.

(b) Crude platinum concentrates containing from five to ten per cent. of osmiridium.

(c) Osmiridium.

(d) Years ended 30th June of the year following that stated.

(e) Information not available.

(f) Domestic crude platinum purchased by refiners.

(g) Approximate production.

II. OTHER PRODUCTION, AS FAR AS INFORMATION IS
AVAILABLE, OF PLATINUM METALS IN CANADA.

1. Recovery of Platinum Black, Palladium and Iridium
Precipitate at the Royal Ottawa Mint.

(Troy ounces)

Year				Platinum Black	Palladium	Iridium Precipitate
1919	...	...	...	29·281	0·696	20·782
1920	...	...	...	7·220	—	—
1921	...	...	...	18·843	—	—

2. Recovery of Platinum and Iridium by the British America
Nickel Corporation at Deschênes, Quebec.

(Troy ounces)

Year				Palladium	Iridium
1919	...	...	...	—	—
1920	...	...	...	—	—
1921	...	...	...	280·85	10·33

3. Contents of Precious Metal Cement produced by the
International Nickel Company at Port Colborne.

(Troy ounces)

Year				Platinum	Palladium	Rhodium, Osmium, etc.
1919	...	...	...	25	62	—
1920	...	...	...	89	174	20
1921	...	...	...	142·7	309·6	45·7

III. OTHER PRODUCTION OF PLATINUM METALS IN THE UNITED STATES.

1. New Platinum and Allied Metals recovered by Refiners in the United States (a).

(Troy ounces)

Year			Platinum	Palladium	Iridium	Osmiridium	Other Platinum Metals
1919	...	...	40,220	3,807	401	402	279
1920	...	...	36,015	4,309	418	409	393
1921	...	...	51,791	2,686	286	581	1,026

(a) Recovered in the refining of domestic and foreign crude platinum-gold bullion, nickel and copper.

2. Recovery of Platinum Metals by the International Nickel Company at Bayonne, New Jersey.

(Troy ounces)

Year			Platinum	Palladium	Rhodium	Other Platinum Metals (a)
1919	...	...	616·716	762·217	227·294	76·613
1920 (b)	...	...	488·901	739·158	390·336	102·363
1921	...	...	281·582	382·626	256·110	10·655

(a) Iridium, Osmium and Ruthenium.

(b) The combined output of platinum metals, during 1920, by the Mond Nickel Company in Great Britain and the International Nickel Company in the United States, is reported by the Ontario Department of Mines as follows:— platinum, 8,345 oz.; palladium, 10,199 oz.; and rhodium-group metals, 522 oz. It is pointed out, however, that the precious metals recovered do not bear a definite ratio to the matte treated, as the residues are allowed to accumulate over irregular periods and recoveries cannot be credited to the matte treated in any particular year.

IV. SUMMARY OF EXPORTS OF PLATINUM METALS.

*(Domestic Produce)**(Troy ounces)*

Exporting Country	Description	1919	1920	1921
<i>British Empire—</i>				
United Kingdom ...	Refined platinum ...	(a)	2,833	1,581
	Alloys, including dental platinum ...	(a)	494	425
Canada (b) ...	Platinum content of concentrates, etc. ...	389	540	709
	Scrap... ..	232	471	183
Australia (c) ...	Ores of platinum, palladium, iridium, etc.	(a)	(280 cwt.)	(21 cwt.)
	Bars, blocks, rods, plates, etc., of platinum, palladium, iridium, etc. ...	1,165	1,397	2,586
<i>Foreign Countries—</i>				
Belgium	Unwrought platinum	(d)	(d)	193
Denmark	Platinum	—	32	32
France	Unwrought platinum	4,565	8,102	8,648
	Sheets	—	386	96
	Drawn or rolled platinum	1,157	2,990	2,411
	Wire	2,315	96	193
Germany	Platinum and platinum alloys, including scrap	(a)	3,054	1,608 (e)
Netherlands ...	Unwrought platinum	—	—	32
Switzerland ...	Unwrought platinum	32	322	868
United States ...	Unwrought platinum	610	1,302	3,272

(a) Information not available.

(b) Years ended 31st March of the year following that stated.

(c) Years ended 30th June of the year stated.

(d) Not recorded, but less than 16 ounces.

(e) Eight months only, May-December.

V. SUMMARY OF IMPORTS OF PLATINUM METALS.

*(Less Re-exports)**(Troy ounces)*

Importing Country	Description	1919	1920	1921
<i>British Empire—</i>				
United Kingdom	Unrefined platinum	2,185	1,558	3,205
	Refined platinum		(883a)	875
	Alloys, including dental platinum		24	520
Canada (b) ...	Bars, strips, sheets, plates or wire (Exchange value)	(£40,368)	(£19,748)	(£20,497)
	Crucibles (Exchange value)	(£3,794)	(£3,050)	(£1,315)
	Retorts, pans, condensers, piping, etc., imported by manufacturers of sulphuric acid (Exchange value)	(£445)	(£1,128)	(£1,031)
Australia (c) (d)	Ores of platinum, palladium, iridium, etc. ...	(e)	(5 cwt.)	(f)
	Bars, blocks, rods, plates, etc. ...	(e)	30	26
	Retorts, pans, condensers and cylinders (£ Australian)	(£1,401)	(£642)	(£2,782)
New Zealand ...	Bars, blocks, rods, etc. ...	7	1	3
<i>Foreign Countries—</i>				
Belgium ...	Unwrought platinum	547	1,254	1,704
Denmark ...	Platinum ...	(97a)	(290a)	(257a)
Finland (c) ...	Unwrought platinum, including sheets and wire ...	32	48	30
France ...	Unwrought platinum and scrap ...	6,977	22,794	7,523
	Drawn or rolled platinum ...	32	450	386
	Wire ...	32	322	—
Germany ...	Platinum and platinum alloys, including scrap ...	(e)	4,019	4,372 (g)
Netherlands ...	Unwrought platinum	129 (h)	96	32
Norway ...	Unwrought platinum	32	51	35
	Wire ...	801	302	492

Importing Country	Description	1919	1920	1921
<i>Foreign Countries</i> (<i>Cont.</i>)—				
Portugal ...	Rolled platinum ...	135	64	(e)
	Wire ...	113	—	(e)
Switzerland ...	Unwrought platinum	32	129	64
Egypt ...	Platinum ...	(i)	3	7
Cuba (c) ...	Dust and bars ...	129	—	(e)
	Ingots ...	19	—	(e)
United States ...	Unwrought platinum	47,947	57,812	44,676
	Ingots, bars, plates, etc. ...	6,603	23,143	17,265
	Palladium, iridium, osmium, etc. ...	13,502	18,685	16,218
Brazil (c) ...	Ingots, sheets and wire ...	80	167	235
Chile ...	Unwrought platinum	108	(e)	(e)
	Bars and sheets ...	(e)	253	3
	Platinum chloride...	2	6	34
Japan (c) ...	Platinum ...	818	8,011	3,919

(a) Excess of re-exports.

(b) Years ended 31st March of the year following that stated.

(c) Total imports.

(d) Years ended 30th June of the year stated.

(e) Information not available.

(f) Less than $\frac{1}{2}$ cwt.

(g) Eight months only, May–December.

(h) Total imports, excluding transit trade.

(i) Imports not distinguished, but re-exports were 33 ounces.

VI. DETAILS OF IMPORTS AND EXPORTS OF PLATINUM METALS.

Article and Country of Origin or Destination	Quantity			Original Currency Value			Value in British Currency converted at Annual Average Rate of Exchange			Gold Value		
	1919	1920	1921	1919	1920	1921	1919	1920	1921	1919	1920	1921

1. UNITED KINGDOM.

	Troy ounces			£ (Currency)			£ (Gold)		
Unrefined Platinum (a).									
Imports (Total) from—									
British Empire ...	1,210	—	325	21,712	—	7,060	19,584	—	5,582
France ...	1,337	1,729	888	25,712	37,130	15,565	23,191	27,905	12,305
Other Foreign Countries ...	158	120	2,832	3,002	2,860	45,314	2,708	2,149	35,825
Total	2,705	1,849	4,045	50,426	39,990	67,939	45,483	30,054	53,712
Re-exports to—									
France ...	520	291	819	12,148	6,447	14,899	10,957	4,845	11,779
Other Foreign Countries ...	—	—	21	—	—	390	—	—	308
Total	520	291	840	12,148	6,447	15,289	10,957	4,845	12,087
Refined Platinum.									
Imports (Total) from—									
France ...	—	879	1,378	—	23,643	27,554	—	17,769	21,784
Other Foreign Countries ...	—	—	1,082	—	—	17,590	—	—	13,906
Total	(b)	879	2,460	(b)	23,643	45,144	(b)	17,769	35,690

(a) Including refined platinum and platinum alloys in 1919.

(b) Included with unrefined platinum.

Article and Country of Origin or Destination	Quantity		Original Currency Value			Value in British Currency converted at Annual Average Rate of Exchange			Gold Value	
	1919	1920	1921	1919	1920	1921	1919	1920	1921	1921

1. UNITED KINGDOM (Continued).

Refined Platinum (Cont.).	Troy ounces		£ (Currency)			£ (Gold)		
	(c)	(d)	23	24	512		18	405
EXPORTS (Domestic) to—	503		1,533	13,010	28,781		9,778	22,754
British Empire	2,223		—	49,043	—		36,858	—
France	107		25	3,493	513		2,625	405
United States								
Other Foreign Countries ...								
Total	2,833	(d)	1,581	65,570	29,806	(d)	49,279	23,564
RE-EXPORTS to—	1,592		1,280	45,222	24,590		33,986	19,440
France	170		305	3,682	5,985		2,767	4,732
Other Foreign Countries ...								
Total	1,762	(b)	1,585	48,904	30,575	(b)	36,753	24,172
Platinum Alloys, including Dental Platinum.								
IMPORTS (Total) from—	24		486	400	4,621		301	3,653
France	—		34	—	403		—	319
Other Foreign Countries ...								
Total	24	(b)	520	400	5,024	(b)	301	3,972
EXPORTS (Domestic) Total	494	(d)	425	14,026	1,978	(d)	10,541	1,564

2. CANADA (a).

Platinum Content of Concentrates, etc.		Troy ounces		Dollars		£ (Currency)		£ (Gold)	
Exports (Domestic) to—									
United Kingdom ...	235	—	24,500	—	—	5,524	—	4,687	—
United States ...	154	540	14,558	52,396	51,008	3,283	12,520	2,786	9,571
Total	389	540	39,058	52,396	51,008	8,807	12,520	7,473	9,571
Platinum Scrap.									
Exports (Domestic) (e)	232	471	24,643	39,982	13,337	5,556	9,554	4,714	7,304
Total									2,514
Platinum Bars, Strips, Sheets, Plates or Wire.									
Imports (for Consumption) from—									
United States ...			141,021	79,343	86,651	31,797	18,959	26,981	14,494
Other Countries ...			38,012	3,304	2,081	8,571	789	7,272	603
Total	(d)	(d)	179,033	82,647	88,732	40,368	19,748	34,253	15,097
Platinum Crucibles.									
Imports (for Consumption) from—									
United Kingdom ...			—	4,000	—	—	956	—	731
United States ...			16,827	8,764	5,693	3,794	2,094	3,219	1,601
Total	(d)	(d)	16,827	12,764	5,693	3,794	3,050	3,219	2,332

(a) Years ended 31st March of the year following that stated.

(b) Included with unrefined platinum.

(c) Less than ½ ounce.

(d) Information not available.

(e) All to United States.

Article and Country of Origin or Destination	Quantity			Original Currency Value			Value in British Currency converted at Annual Average Rate of Exchange				Gold Value	
	1919	1920	1921	1919	1920	1921	1919	1920	1921		1919	1921

2. CANADA (a) (Continued).

Platinum Retorts, Pans, Condensers, Piping, etc., imported by manufacturers of Sulphuric Acid. IMPORTS (for Consumption). (f). Total	Troy ounces		Dollars		£ (Currency)		£ (Gold)				
	(c)	(c)	(c)	(c)							
			1,975	4,719	4,462	445	1,128	1,031	378	862	841

3. AUSTRALIA (b).

Platinum Ore (d).		Cwt.		£ (Australian)			£ (Gold)		
	(c)	5	(g)	(c)	110	7	(c)	89	5
Imports		—	1		—	45		—	34
Exports (Domestic) to—		—	20		—	10		—	8
United Kingdom.		280	—		422	—		342	—
Germany									
United States									
Total	(c)	280	21	(c)	422	55	(c)	342	42

**Platinum Bars, Blocks,
Rods, Plates, etc.**

IMPORTS (Total) from—	Troy ounces									
	30	25								
United Kingdom ...	—	1		706	342				572	261
Foreign Countries ...				—	4				—	3
Total	(c)	30	26	(c)	706	346			(c)	572
										264
EXPORTS (Domestic) (d) to—										
United Kingdom ...	242	201	587	4,106	5,766	14,259			3,985	10,889
Canada ...	611	—	—	21,226	—	—			20,602	—
New Zealand ...	4	—	76	80	—	3,058			78	2,335
United States ...	308	1,196	1,763	7,634	46,849	60,330			7,410	46,072
Japan ...	—	—	160	—	—	3,496			—	2,670
Total	1,165	1,397	2,586	33,046	52,615	81,143			32,075	61,966
RE-EXPORTS (d) to—										
United Kingdom ...	158	733	25	2,759	15,038	655			2,678	500
Fiji ...	—	—	(e)	—	—	2			—	2
United States ...	1	—	104	18	—	3,536			17	2,700
Total	159	733	129	2,777	15,038	4,193			2,695	3,202
Platinum Retorts, Pans, Condensers, Cylinders, etc.										
IMPORTS (Total) from—										
United Kingdom ...				1,370	515	844			1,330	645
France ...				31	127	1,173			30	896
United States ...				—	—	765			—	584
Total	(c)	(c)	(c)	1,401	642	2,782			1,360	2,125

(a) Years ended 31st March of the year following that stated. (b) Years ended 30th June of the year stated.
 (c) Information not available. (d) Including iridium, palladium, osmium, rhodium and ruthenium. (e) Insignificant.
 (f) All from United States. (g) Less than $\frac{1}{4}$ cwt.

Article and Country of Origin or Destination	Quantity			Original Currency Value			Value in British Currency converted at Annual Average Rate of Exchange			Gold Value		
	1919	1920	1921	1919	1920	1921	1919	1920	1921	1919	1920	1921

4. BELGIUM.

Unwrought Platinum.												
IMPORTS (<i>for Home Consumption</i>) from—												
France ...	515	804	187,614	537,947							8,201	
Other Countries	32	900	11,100	355,590			5,836		10,373	5,264	5,421	
Total	547	1,254	198,714	893,537			6,181	18,926	17,230	5,575	13,622	
EXPORTS (<i>Domestic</i>)												
Total	(a)	(a)	193	2,700	8,000	98,860	84	159	1,906	76	119	1,507

5. FRANCE.

Unwrought Platinum and Scrap.	Troy ounces			Thousand francs			£ (Currency)			£ (Gold)		
IMPORTS (<i>for Home Consumption</i>) from—												
United Kingdom	1,768	1,575	5,658	990	1,715	5,280	31,152	32,555	101,695	28,098	24,466	80,399
Italy	2,637	450	547	1,476	490	510	46,443	9,302	9,823	41,891	6,991	7,766
Switzerland	804	19,837	(<i>b</i>)	450	21,595	(<i>b</i>)	14,160	409,928	(<i>b</i>)	12,772	308,078	(<i>b</i>)
Other Countries	1,768	932	1,318	990	1,015	1,230	31,152	19,267	23,690	28,098	14,480	18,729
Total	6,977	22,794	7,523	3,906	24,815	7,020	122,907	471,052	135,208	110,859	354,015	106,894

Platinum Wire.

Imports (Total) from—									
Germany	...	161	492		75,000	229,500		3,332	8,776
Other Countries	...	141	—		66,000	—		2,932	—
Total		302	492	323,700	141,000	229,500	17,825	6,264	8,776
		801							16,078
									6,938

8. SWITZERLAND.

		Troy ounces		Francs		£ (Currency)			£ (Gold)	
Unwrought Platinum.										
Imports (for Home Consumption) from—										
France	...			—	15,400	—	—	710	—	534
Germany	...			7,000	31,896	—	—	300	271	1,105
Netherlands	...			14,929	10,100	—	—	640	577	349
Sweden	...			—	6,000	26,000	—	276	—	207
Total		32	129	21,929	63,396	26,000	940	2,921	848	2,195
										925
Exports (Domestic) to—										
France	...			11,000	157,883	83,093	472	7,276	3,738	5,468
Germany	...			—	2,000	203,779	—	92	9,167	69
Other Countries	...			—	3,073	4,643	—	142	209	107
Total		32	322	868	162,956	291,515	472	7,510	13,114	5,644
									426	10,368

(a) The figures given for 1921 refer to eight months only, May—December.

(b) Information not available

**Iridium, Osmium, Palladium,
etc.**

Iridium, Osmium, Palladium, etc.													
IMPORTS (<i>Total</i>) from—													
United Kingdom	...	6,975	10,152	11,641	627,551	970,885	739,699	142,983	265,487	192,279	128,967	199,524	152,013
Australia	...	874	2,965	1,894	98,750	348,038	215,807	22,499	95,170	56,097	20,293	71,524	44,350
France	...	4,783	3,812	1,198	683,248	496,810	182,547	155,673	135,852	47,452	140,413	102,099	37,515
Other Countries	...	870	1,756	1,485	92,546	232,800	136,652	21,086	63,659	35,522	19,019	47,842	28,083
Total		13,502	18,685	16,218	1,502,095	2,048,533	1,274,705	342,241	560,168	331,350	308,692	420,989	261,961

10. JAPAN.

		Troy ounces		Thousand yen		£ (Currency)			£ (Gold)				
Platinum.	Imports (Total) from—	520	5,026	90	115	1,502	22	13,233	205,192	2,750	11,936	154,210	2,174
	United Kingdom	4	2,322	2,984	1	716	505	115	97,814	63,125	104	73,511	49,906
	United States	294	663	845	62	131	160	7,135	17,896	20,000	6,435	13,450	15,812
	Other Countries												
	Total	818	8,011	3,919	178	2,349	687	20,483	320,902	85,875	18,475	241,171	67,892

VII. PRICES OF PLATINUM.

MOVEMENTS OF LONDON MARKET PRICES.

(Information supplied by Messrs. Johnson Matthey and Co., Ltd.)

Date	Per fine ounce	Date	Per fine ounce
1919	s.	1921	s.
2 June	452	7 January	380
3 December	512	26 "	400
30 "	770	9 September	410
		29 November	390
1920		1922	
31 March	680	14 January	420
10 May	480	18 "	480
14 June	400	2 February	420
28 "	360	16 "	390
27 July	420	31 July	400
5 August	520	22 August	410
13 "	620	28 "	440
14 October	520	4 September	480
19 November	480	11 "	520
14 December	440	5 October	500
		18 "	460
		18 December	500

LIST OF STATISTICAL PUBLICATIONS.

UNITED KINGDOM.

Annual Statement of the Trade of the United Kingdom with Foreign Countries and British Possessions, 1921, Vols. II and III.

CANADA.

Annual Reports of the Mineral Production of Canada.
Annual Report of the Ontario Department of Mines.
Annual and Monthly Reports of the Trade of Canada.

AUSTRALIA.

Commonwealth.—Trade and Customs and Excise Revenue of the Commonwealth of Australia.

New South Wales.—Annual Reports of the Department of Mines.

Tasmania.—Annual Reports of the Acting-Secretary for Mines.

Papua.—Annual Reports.

NEW ZEALAND.

Statistics of the Dominion of New Zealand; Vol. II, Trade and Shipping.

BELGIUM.

Tableau Annuel du Commerce de la Belgique avec les Pays Etrangers.

DENMARK.

Danmarks Vareindførsel og -Udførsel.

FINLAND.

Finlands Handel på Utrikes Orter samt Uppbörden vid Tullverket, 1919.

FRANCE.

Tableau Général du Commerce et de la Navigation de la France, Vol. I.
Documents Statistiques du Commerce de la France.

GERMANY.

Statistisches Jahrbuch für das Deutsche Reich, 1921.

NETHERLANDS.

Jaarstatistiek van den In-, Uit-, en Doorvoer, Part I.

NORWAY.

Norges Handel.

PORTUGAL.

Estatística Comercial; Comercio e Navegação.

RUSSIA.

Annuaire Statistique.

SWITZERLAND.

Statistique du Commerce de la Suisse avec l'Etranger.

EGYPT.

Annual Statement of the Foreign Trade of Egypt.

CUBA.

Comercio Exterior.

UNITED STATES.

United States Geological Survey; Mineral Resources of the United States.
Foreign Commerce and Navigation of the United States.

BRAZIL.

Comercio Exterior do Brasil.

CHILE.

Anuario Estadístico de la Republica de Chile; Comercio Exterior.

JAPAN.

Agricultural and Commercial Statistics.
Annual Return of the Foreign Trade of the Empire of Japan, Part I.

IMPERIAL MINERAL RESOURCES BUREAU.

The following is a list of the Official Publications (all prices are net, and those in parentheses include postage) :—

REPORTS ON THE MINERAL INDUSTRY OF THE BRITISH EMPIRE AND FOREIGN COUNTRIES. (WAR PERIOD, 1913-19.)

Aluminium and Bauxite	(1921)	Price	9d.	(10½d.)
Antimony	(1921)	"	1s. 0d.	(1s. 1½d.)
Arsenic	(1920)	"	6d.	(7d.)
Asbestos	(1921)	"	1s. 0d.	(1s. 1½d.)
Barium Minerals	(1921)	"	9d.	(10½d.)
Bismuth	(1920)	"	6d.	(7d.)
Borates	(1920)	"	9d.	(10½d.)
China Clay			<i>In the press.</i>	
Chrome Ore and Chromium	(1920)	"	1s. 0d.	(1s. 1½d.)
Coal, Coke and By-Products :				
Part I	(1921)	"	3s. 6d.	(3s. 8½d.)
Part II	(1922)	"	6s. 6d.	(7s. 0½d.)
Part III	(1922)	"	7s. 0d.	(7s. 6½d.)
Cobalt	(1921)	"	9d.	(10½d.)
Copper	(1922)	"	4s. 0d.	(4s. 3½d.)
Felspar	(1920)	"	6d.	(7d.)
Fluorspar	(1921)	"	9d.	(10½d.)
Fuller's Earth	(1920)	"	6d.	(7d.)
Gold	(1922)	"	6s. 0d.	(6s. 5½d.)
Graphite	(1923)	"	1s. 6d.	(1s. 7d.)
Gypsum	(1923)	"	9d.	(10d.)
Iron Ore Resources of the World :				
Part I. United Kingdom	(1922)	"	6s. 0d.	(6s. 5d.)
Part II. British Africa	(1922)	"	3s. 0d.	(3s. 3d.)
Part III. British America	(1922)	"	3s. 6d.	(3s. 9½d.)
Part IV. British Asia	(1922)	"	2s. 6d.	(2s. 8½d.)
Part V. Australia and New Zealand... ..	(1922)	"	4s. 0d.	(4s. 4d.)
Part VI. Europe and Africa (Foreign)	(1922)	"	6s. 0d.	(6s. 6d.)
Part VII. Foreign America	(1922)	"	4s. 0d.	(4s. 4½d.)
Part VIII. Foreign Asia	(1922)	"	2s. 6d.	(2s. 9½d.)
Lead	(1922)	"	3s. 0d.	(3s. 2d.)
Lead Poisoning. Laws and Regulations	(1922)	"	5s. 0d.	(5s. 4½d.)
Magnesite	(1920)	"	1s. 3d.	(1s. 4½d.)
Manganese	(1921)	"	3s. 6d.	(3s. 8½d.)
Mica	(1921)	"	9d.	(10½d.)
Molybdenum	(1923)	"	1s. 6d.	(1s. 7½d.)
Monazite	(1920)	"	6d.	(7d.)
Nickel	(1922)	"	1s. 6d.	(1s. 7½d.)
Nitrates	(1920)	"	9d.	(10½d.)
Petroleum			<i>In the press.</i>	
Phosphates	(1921)	"	2s. 0d.	(2s. 1½d.)
Platinum and Allied Metals	(1922)	"	2s. 0d.	(2s. 2d.)
Quicksilver	(1922)	"	1s. 0d.	(1s. 1½d.)
Salt			<i>In the press.</i>	
Silver	(1923)	"	4s. 0d.	(4s. 3d.)
Strontium Minerals	(1923)	"	3d.	(3½d.)
Sulphur and Iron Pyrites	(1922)	"	1s. 6d.	(1s. 7½d.)
Talc	(1921)	"	9d.	(10½d.)
Tin	(1922)	"	3s. 0d.	(3s. 2d.)
Tungsten	(1921)	"	1s. 0d.	(1s. 1½d.)
Vanadium	(1922)	"	6d.	(7d.)
Zinc	(1921)	"	3s. 6d.	(3s. 8d.)
Statistical Summary (Production, Imports and Exports)	(1913-20)	"	3s. 0d.	(3s. 2d.)

(Continued on page 4 of cover.)

